CLAIMS

1. An interference canceling apparatus comprising:

directivity selecting means for inputting a
5 plurality of array combined signals subjected to
array combining on a directivity-by-directivity
basis to select an array-combined signal
corresponding to a path;

despreading means for detecting a correlation
10 value between said selected array-combined signal
and a spread code;

replica signal generating means for generating
a replica signal every directivity based on said
detected correlation value; and

15 canceling means for canceling interference of a
desired signal from each of said array combined
signals using said generated replica signal.

2. The interference canceling apparatus
according to claim 1, wherein said replica signal
20 generating means comprises combing means for
combining the correlation values to generate a
combined value, temporarily determining means for
temporarily determining said generated combined
value to generate a temporary determination value,
25 re-spreading means for re-spreading said generated
temporary determination value to generate re-spread
signals, dividing means for dividing said re-spread
signals every directivity corresponding to the path,

and adding means for adding said re-spread signals divided every directivity to generate a replica signal.

    3. The interference canceling apparatus according to claim 1, wherein said canceling means cancels the replica signal of the other user from the array combined signal on a directivity-by-directivity basis.

    4. A base station apparatus having an interference canceling apparatus, said interference canceling apparatus comprising:

    directivity selecting means for inputting a plurality of array combined signals subjected to array combining on a directivity-by-directivity basis to select an array-combined signal corresponding to a path;

    despreading means for detecting a correlation value between said selected array-combined signal and a spread code;

    replica signal generating means for generating a replica signal every directivity based on said detected correlation value; and

    canceling means for canceling interference of a desired signal from each of said array combined signals using said generated replica signal.

    5. An interference signal canceling method comprising the steps of:

    inputting a plurality of array combined signals

subjected to array combining on a directivity-by-directivity basis to select an array-combined signal corresponding to a path;

detecting a correlation value between said

5   selected array combined signal and a spread code;

generating a replica signal every directivity based on said detected correlation value; and

canceling interference of a desired signal from each of said array combined signals using said

10   generated replica signal.